

ENGLISH LANGUAGE TRANSLATION OF AMENDED CLAIMS
(Art. 19 PCT)

AMENDED CLAIMS

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claims 1-6 replaced by amended claims 1-2)

1. Foam spring mattress (1), of the type of those that have a plurality of foam springs (5), that behave individually as elastic parts that after being deformed under the action of a force, recover their original shape and position once the action of said force ceases, characterised in that it comprises:

- a main body (4) of the mattress (1) made from a single block composed of a single material, or of several materials of different densities glued together beforehand, or made by injection, in a parallelepiped manner, of polyurethane or latex material with densities of between 30 and 90 kg/m³, in which a plurality of individual springs (5) are shaped by an operation of cutting or injection modelling, located either within the interior of said block, or in the upper area of said block, said springs (5) having a prismatic or troncopyramidal general external shape, said prisms or pyramid trunks having lateral faces cut out in zigzag shapes (5.1; 5.2) so that the salient sections or spirals (5.1) and depressed sections (5.2) of the zigzag surface of each face coincide, respectively, with the inset sections (5.2) and salient sections or spirals (5.1) of the face opposite it thus imitating the configuration of a traditional mattress, said springs (5) being amenable to including different number of salient sections or spirals (5.1) for different springs of a single main body (4) of said mattress (1) and said main body (4) of said mattress (1) being amenable to having different pluralities of said springs (5) and said springs (5) being amenable to having being distributed in different ways depending on the area of the mattress and the distribution of the body weight of a person, with the objective that said main body (4) of said mattress (1) offering areas with different degrees of resistance to compression; and
- optionally, a viscoelastic layer (3) of 50 kg/m³ density, 4 cm thick polyurethane that serves as the upper surface of the mattress (1).

2. Foam spring mattress according to claim 1, characterised in that said cutting operation is carried out:

- a) for mattresses (1) with interior springs (5) on said parallelepiped block in order to obtain a main body (4) of the mattress (1) by means of a specific cutting

machine that shapes by means of a cutting blade that covers the entire length or width of the block two opposite faces of each spring (5) and partially, a platform (6) in which all of the springs (5) or each mattress (1) are integrated and a second step, after turning said block 90° around a vertical axis, in order to shape by means of the same cutting blade manoeuvred by said machine, that covers the entire width or length of the block, two second opposite faces adjacent to the first two opposite faces and completely the platform (6) in which all the springs (5) of each mattress (1) are integrated; or

- b)** for mattresses (1) with springs (5) located on the upper area of said block, on a parallelepiped block in order to obtain in the same operation two main bodies (4) or the mattress (1) by way of a specific cutting machine that shapes by means of a cutting blade that covers the entire length or width of the block, two first opposite faces of each spring (5) and partially, two platforms (6) in which all the springs (5) of each mattress (1) are integrated, and a second step, after turning said block 90° around a vertical axis, in order to shape by means of the same blade, which covers the entire width or length of the polyurethane block, two second opposite faces adjacent to the first opposite faces and completely the two platforms (6) in which all the springs (5) of each mattress are integrated, with minimal waste of the material from the block since two main bodies (4) of the mattress (1) that are essentially equal and complementary are obtained.